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A.D. 1791 . . . . . N<sup>o</sup> 1808.

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S P E C I F I C A T I O N

OF

JOHN ROGER TESCHEMACHER.

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BOILER FOR STEAM ENGINES.

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L O N D O N :

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**Boiler for Steam Engines.**

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**TESCHEMACHER'S SPECIFICATION.**

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, JOHN ROGER TESCHEMACHER, of the Parish of Clarborough, in the County of Nottingham, Gentleman, send greeting.

**WHEREAS** His most Excellent Majesty King George the Third, by His  
5 Letters Patent under the Great Seal of Great Britain, bearing date the Twenty-fourth day of May, in the Thirty-first year of His reign, did give and grant unto me, the said John Roger Teschemacher, His especial licence that I, the said John Roger Teschemacher, during the term of years therein expressed, should and lawfully might make, use, exercise, and vend, within England,  
10 Wales, and Town of Berwick upon Tweed, my Invention of “PRODUCING STEAM BY MEANS OF A MACHINE TO BE USED IN ENGINES INSTEAD OF THE COMMON BOILER, AND ALSO APPLYING THE SAME MACHINE IN WORKING ENGINES OF EVERY DESCRIPTION WHERE STEAM IS USED, AND SO AS TO RAISE AND PRODUCE A VERY LARGE QUANTITY OF STEAM WITH VERY LITTLE FUEL, UPON PRINCIPLES NOT HERETOFORE PUT  
15 IN PRACTICE;” in which said Letters Patent there is contained a proviso obliging me, the said John Roger Teschemacher, under my hand and seal, to cause a particular description of the nature of my said Invention, and how the same is to be performed, to be inrolled in His Majesty's High Court of Chancery within one calendar month next after the date of the said recited Letters Patent, as  
20 in and by the same (relation being thereunto had) may more fully and at large appear.

**NOW KNOW YE**, that in compliance with the said proviso, I, the said John Roger Teschemacher, do hereby declare that my said Invention of producing steam by means of a machine or boiler to be used in steam engines  
25 instead of the boiler commonly used, and also of applying the same machine in working engines of every description where steam is used, and so as to raise

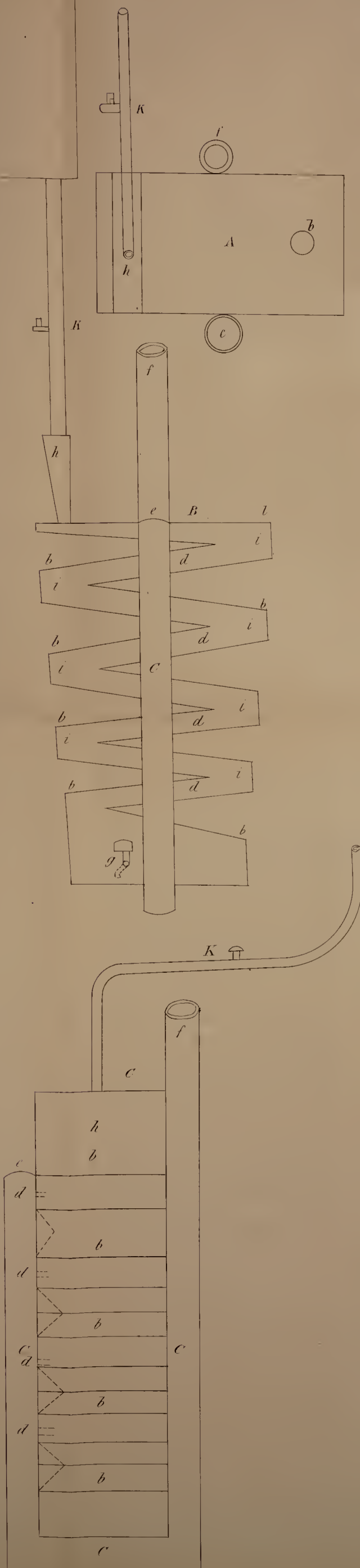


*Teschmacher's Improvements in Producing Steam in Engines, &c.*

and produce a very large quantity of steam with very little fuel, is founded upon the following principles, that is to say:—

The water employed for producing steam is constantly in a running state over inclined planes or shelves which are in contact with the fire that communicates the heat to the said inclined planes or shelves. These inclined planes 5 or shelves may be put into different forms or shapes, and the annexed plan, exhibiting three several views or geometrical elevations marked with the several capital letters A, B, and C, will more fully explain the principles upon which the said machine or boiler is founded, by or from which the same can be made, and how the said machine is to be performed and used, viz<sup>t</sup>, that part of the plan 10 marked with the capital letter A represents the top of the boiler, into which the water is conveyed, and from which the steam issues, and also where a valve may be put to regulate the steam. That part of the plan marked with the capital letter B represents a front view of the said boiler with the different inclined shelves, upon the inside of which the water runs. That part of the plan 15 marked with the capital letter C represents one of the side views of the said boiler. The said plan marked with the said several capital letters A, B, and C, compose or form the whole boiler or machine for creating steam, and which may be made of metallic or any other substances capable of supporting a continual heat of fire. This machine is to be immersed, fixed into, or put upon 20 a common or an air furnace with flues and registers constructed in such a manner as will draw the flame of the fire the whole length of all or any of the said inclined shelves or planes, as the strength or force of the steam is required. That part of the plan above referred to marked with the letters *b*, represent the inclined shelves or planes which are to be heated by the fire resting 25 against them. The inside of the shelves being constructed as to be steam-tight and to admit a free course of the water, the water constantly making its course backwards and forwards from one hot inclined shelf to the other, until it reaches the bottom of the machine, and is then let out at an aperture marked with the letter *g*. That part of the plan above referred to and marked 30 with the several letters *c* represents the steam pipe through which the steam passes, and in which are contained four holes or apertures, which are marked with the several letters *d*, and communicate with the inside of the boiler, and by which the steam is let into this pipe from the boiler, and which pipe is perfectly closed at that part of the said machine which is marked with the 35 several letters *e*, and the steam issues at the long end of the pipe which is marked in the said plan with the several letters *f*; from thence it is conveyed by a pipe or pipes with regulators and valves of the same kind as are commonly used for boilers to steam engines; this pipe marked in the said plan above

CISTERN



The enrolled drawing is partly colored

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*Teschemacher's Improvements in Producing Steam in Engines, &c.*

referred to with the several letters *c* may be surrounded by fire, and which will then give a further expansion to the steam. That part of the machine which in the said plan is marked with the letter *g* is an aperture into which a bent pipe and cock are to be inserted; the said cock is intended to carry off  
 5 the unevaporated water. That part of the said machine which in the said plan is marked with the several letters *h* represent a flat aperture, into which a pipe marked with the several letters *k* is fixed; this pipe conveys the water from an elevated cistern into the boiler or machine. On the pipe a stop cock is to be placed in order to admit more or less water into the boiler as occasion may  
 10 require. That part of the said machine which in the said plan is marked with the several letters *i* represent the inside course of the water from one shelf to the other; the instant the water falls on the inclined hot shelves it divides by the heat into a number of small globules, which have but little contact with the shelves, and expose a very considerable surface to the surrounding heat. That  
 15 part of the said machine which in the said plan is marked with the several letters *l* represents an opening to which a regulating valve or valves of safety is to be fixed; this is to be opened whenever the steam is too strong or violent.

In witness whereof, I, the said John Roger Teschemacher, have here-  
 unto set my hand and seal, the Twenty-third day of June, in the year  
 20 of our Lord One thousand seven hundred and ninety-one.

JOHN ROGER (L.S.) TESCHEMACHER.

Sealed and delivered (being first  
 duly stamped) in the presence  
 of,

25 THO<sup>s</sup> HOLLOWAY, Chancery Lane,  
 H. MARTELLI, Clerk to M<sup>r</sup> Holloway.

**AND BE IT REMEMBERED**, that on the same Twenty-third day of June, in the year above written, the aforesaid John Roger Teschemacher, came before our Lord the King in his Chancery, and acknowledged the Specification  
 30 aforesaid, and all and everything therein contained, in form above written. And also the Specification aforesaid was stamped according to the tenor of the Statute in that case made and provided.

Inrolled the same Twenty-third day of June, in the year above mentioned.

LONDON:

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,  
 Printers to the Queen's most Excellent Majesty. 1854.



